

AMENDMENTS TO THE ABSTRACT

Please replace the Abstract of record with the attached Substitute Abstract. The changes made to the Abstract are shown below.

ABSTRACT

~~The invention relates to a~~A method for the ultrasensitive simultaneous measurement of nonlinear optical emission signals in one or two local dimensions. ~~Said method comprises wherein the following steps: the excitation light is irradiated in a power modulated or pulse-modulated form from at least one light source into an interactive volume or onto an interactive area or layer (hereafter called interactive spaces)space in which one or several emissions that are nonlinearly correlated with the excitement light can be excited; the~~ The light emanating from ~~said the~~ interactive spaces is measured ~~by means of using~~ a one-dimensional or two-dimensional detector array; ~~the measured~~ Measured data is then transmitted ~~from said detector array~~ to a computer; ~~and said data is~~ and formatted in a one-dimensional or two-dimensional data matrix. ~~The inventive method is characterized in that non-correlated~~ Further, non-correlated portions of the light emanating from the interactive spaces ~~or the portions thereof~~ that are linearly proportionate to the intensity of the excitement light available in ~~said the~~ interactive spaces are separated from portions of the light emanating from the interactive spaces, spaces which are not linearly proportionate to the intensity of the available excitement light. The invention ~~further also~~ relates to an analytical system ~~that is suitable for carrying out the inventive~~ this method.